REMARKS

The present application was filed on July 21, 2003 with claims 1-18. Claims 1-18 are pending in the present application. In the outstanding Office Action dated November 17, 2005, which has been made final, the Examiner has: (i) rejected claim 9 under 35 U.S.C. §112, second paragraph as being indefinite; (ii) rejected claims 1-3, 5-8 and 14-16 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,707,102 to Morikawa et al. (hereinafter "Morikawa"); (iii) rejected claims 4, 10, 11, 13 and 17 under 35 U.S.C. §103(a) as being unpatentable over Morikawa; and (iv) indicated that claims 12 and 18 are allowable.

In this response, claim 9 has been canceled without prejudice, and therefore the §112 rejection of claim 9 is rendered moot. Furthermore, claims 12 and 18 have been amended. Specifically, claims 12 and 18, which the Examiner has indicated as being allowable, have been rewritten in independent form including all of the limitations of their respective base claims and any intervening claims, as suggested by the Examiner. Applicants traverse the §102 and §103 rejections for at least the reasons set forth below. Applicants respectfully request reconsideration of the present application in view of the above amendments and the following remarks.

Claims 1-3, 5-8 and 14-16 stand rejected under 35 U.S.C. §102(b) as being anticipated by Morikawa. With regard to independent claims 1 and 14, which are of similar scope, the Examiner contends that Morikawa discloses each of the elements set forth in the subject claims. Specifically, the Examiner contends that, in response to Applicants arguments set forth in the previous response dated August 4, 2005, "[t]he connection and wiring structures relating the first source/drain region and the shielding structure was also considered but found moot in view of the prior art front page structure" (final Office Action; page 7, second paragraph). Applicants respectfully disagree with these contentions.

FIG. 2 of Morikawa, upon which the Examiner relies as the basis for the §102 rejection of the subject claims, depicts a cross-sectional view of the MOSFET device shown in FIG. 1. While FIG. 2 shows a connection between the source electrode wiring (13) and the shield conductive film (10), which the Examiner analogizes with the shielding structure of the claimed invention, this connection is not a physical connection but rather is a symbolic (schematic) representation of the connection between the source electrode wiring and the shield conductive

film. With reference to FIG. 1 and the text corresponding thereto, Morikawa clearly discloses that the actual physical connection between the source electrode wiring and the shield conductive film is made outside an active area of the device, and is thus distinguishable from claims 1 and 14.

In contrast to the claimed invention, Morikawa discloses that the portion of the shield conductive film 10 which electrically connects to the wiring 13 is not formed above an active area of the device, but is instead formed over a field oxide film 2 which lies outside the active region of the device (Morikawa; FIGS. 1 and 2). The wiring 13 constitutes a source electrode and electrically connects the source region 5 to the shield conductive film 10 (Morikawa; column 6, lines 5-9). Morikawa expressly states, with reference to FIGS. 1 and 2, that "wiring 13 is also electrically connected to the shield conductive film 10 via a contact hole 18, which is formed in the silicon oxide film 12 provided over the field oxide film 2 surrounding an active region L" (Morikawa; column 6, lines 10-14; emphasis added). Morikawa thus teaches away from the connection arrangement of the claimed invention.

As stated in Applicants' prior response, although a portion of the wiring 13 in the Morikawa device, which the Examiner analogizes to the "connection" set forth in claims 1 and 14, may traverse a region above an active area of the device, Morikawa fails to explicitly disclose that the wiring 13 comprises "a substantially vertical conductor formed in a region of the device overlying an active area of the device between the gate and the second source/drain region," as required by the claimed invention. Unlike the device configuration taught by Morikawa, because the connection between the shielding structure and the first source/drain region set forth in claims 1 and 14 comprises a substantially vertical conductor formed over the active area of the device, the connection itself provides additional beneficial gate shielding so as to improve an effectiveness of the shielding structure, without increasing a capacitance between the gate and the second source/region, or between the gate and the first source/drain region. Since the shield conductive film 10 in Morikawa is electrically connected to the wiring 13 outside of the active region L of the device, the wiring provides essentially no additional shielding benefits to the device.

For at least the reasons set forth above, Applicants submit that claims 1 and 14 are

patentable over the prior art of record. Accordingly, favorable reconsideration and allowance of claims 1 and 14 are respectfully solicited.

With regard to claims 2, 3 and 5-8, which depend from claim 1, and claims 15 and 16, which depend from claim 14, Applicants submit that these claims are also patentable at least by virtue of their dependency from their respective base claims. Moreover, one or more of these claims define additional patentable subject matter in their own right. For example, claims 10 and 17 further define the shielding structure as being "formed relative to the gate such that a capacitance between the gate and the second source/drain region is minimized without substantially increasing a capacitance between the gate and the first source/drain region." The prior art of record fails to teach or suggest at least this additional feature.

With regard to claims 10 and 17, the Examiner contends that:

> the insulation layers separating the shielding structures from the drain regions are thicker than the gate insulation layers used in the structures. Further, please note that the elevation of the shielding structures in relation to the position of the gate in vertical orientation is similar in both structures. Clearly, the lateral spacing difference between the gate and the shielding layer in both structures if there is one is immaterial so far as capacitance is concerned because the shielding layer is positioned on the drain region in both structures (final Office Action; page 5, first paragraph).

Applicants respectfully disagree with this contention. Claims 10 and 17 explicitly require that the shielding structure be formed in such a manner as to minimize the capacitance between the gate and second source/drain region, without substantially increasing the capacitance between the gate and first source/drain region. While the MOSFET device disclosed in Morikawa is intended to provide some reduction in gate-to-source capacitance (Cgs) and drain-to-source capacitance (Cds) compared to standard devices (Morikawa; column 10, lines 39-47), Morikawa fails to teach or suggest any arrangement of the shield conductive film which minimizes the capacitance between the gate and second source/drain region, without substantially increasing the capacitance between the gate and first source/drain region, as required by the subject claims. As stated in the present specification with reference to FIG. 2, the shielding structure (e.g., dummy gate 222) "is selectively located, in relation to the gate 220, so as to optimize an effectiveness of the dummy gate," which may be measured by "the amount of reduction in Miller

capacitance Cgd and/or HCI degradation in the device" (Specification; page 7, lines 14-18).

For at least the reasons set forth above, Applicants submit that claims 2, 3, 5-8, 15 and 16 are patentable over the prior art of record, not merely by virtue of their dependency from their respective base claims, but also in their own right. Accordingly, favorable reconsideration and allowance of claims 2, 3, 5-8, 15 and 16 are respectfully requested.

In view of the foregoing, Applicants believe that claims 1-8 and 10-18, which are currently pending in the application, are in condition for allowance, and respectfully request withdrawal of the §112, §102 and §103 rejections.

Respectfully submitted,

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